



THE BAHAMAS

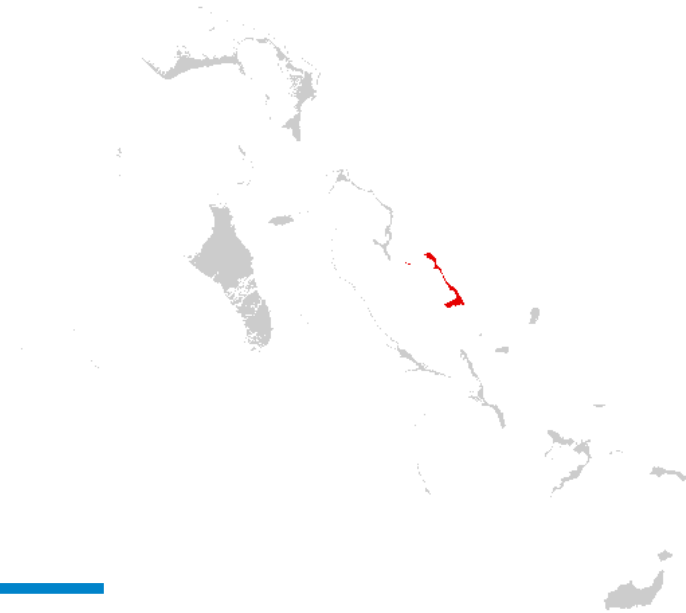
CAT ISLAND

NDPBA ISLAND PROFILE

THE BAHAMAS CAT ISLAND

CAPITAL: ARTHUR'S TOWN

Area: 150 sq. mi (388.5 sq. km)



RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Very High

Score: 0.455 • Rank: 3/17



RESILIENCE (R) - Very Low

Score: 0.425 • Rank: 14/17



MULTI-HAZARD EXPOSURE (MHE) - Moderate

Score: 0.423 • Rank: 8/17



VULNERABILITY (V) - Very High

Score: 0.548 • Rank: 1/17



COPING CAPACITY (CC) - Low

Score: 0.586 • Rank: 13/17



Population (2010 Census)

1,522



Population in Poverty

49.9%



Average Annual Foreign Arrivals Per Capita

290.3



Households with Piped Water

74.8%



Prevalence of Crowded Housing

14.2%

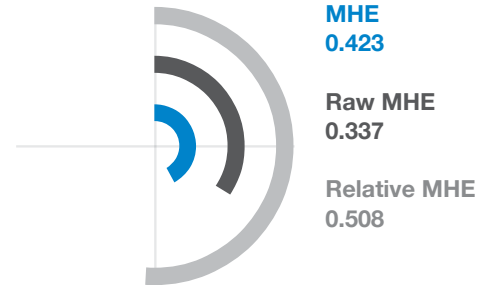
*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



MULTI-HAZARD EXPOSURE (MHE)

RANK: 8 / 17 ISLANDS

SCORE: 0.423



ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:

Note: Population values from PDC's All-hazard Impact Model (AIM) leverage 2020 estimates for The Bahamas. Values may exceed 2010 Census population.



Tropical Cyclone Winds

100.0%

1,463

\$118.6 Million



Storm Surge

75.0%

1,097

\$75.8 Million



Flooding

42.0%

614

\$44.8 Million



Wildfire

0.6%

8

\$4.6 Million



Landslide

4.5%

66

\$4.3 Million



Sea Level Rise

1.0%

< 25

\$1.5 Million



VULNERABILITY (V)

RANK: 1 / 17 ISLANDS ASSESSED
SCORE: 0.548

Vulnerability in Cat Island is primarily driven by Clean Water Access Vulnerability and Economic Constraints. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Environmental Stress

0  1 **SCORE: 0.559** **RANK: 8/17 ISLANDS ASSESSED**

69.4% **73.3%** **9.5%** **0.88 per mi. (0.55 per km)**
 Coral reef exposed to local threats Coral reef exposed to thermal stress Tree cover loss Historical hurricane hits per length of coastline



Household Composition Vulnerability

0  1 **SCORE: 0.601** **RANK: 6/17 ISLANDS ASSESSED**

5.1% **13.1%**
 Disability Elderly population (65+)



Clean Water Access Vulnerability

0  1 **SCORE: 0.869** **RANK: 1/17 ISLANDS ASSESSED**

74.8% **83.5%** **4.8%**
 Households with piped water Households with flush toilets Households with shared toilet facilities



Housing and Transportation Vulnerability

0  1 **SCORE: 0.406** **RANK: 12/17 ISLANDS ASSESSED**

14.2% **40.2%** **37.2%**
 Crowded housing Population without private vehicle Housing built before 1980



Economic Constraints

0  1 **SCORE: 0.681** **RANK: 3/17 ISLANDS ASSESSED**

60.8 **\$231** **56.1%** **49.9%**
 Economic dependency ratio Government benefits received (Bahamian Dollars) Non-wage earning population Poverty rate



Gender Inequality

0  1 **SCORE: 0.226** **RANK: 15/17 ISLANDS ASSESSED**

0.66

Ratio female to male income

0.97

Ratio female to male avg. years of school

8

Adolescent birth rate (per 1,000)



Population Pressures

0  1 **SCORE: 0.499** **RANK: 6/17 ISLANDS ASSESSED**

-7.6%

Average population change (2000 - 2010)

290.3

Average annual foreign arrivals per capita

2,945.5

Average annual foreign arrivals per sq. mile

1.0

Migration per 100 persons



ISLAND CAPACITY (IC)

RANK: 15 / 17 ISLANDS ASSESSED
SCORE: 0.351

Cat Island exhibits weaker Island Capacity in the areas of Health Care Capacity and Transportation Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity

0 1 **SCORE: 0.126** **RANK: 14/17 ISLANDS ASSESSED**

0.3% **\$8,400**
 Households receiving remittances Median income, Bahamian dollars



Environmental Capacity

0 1 **SCORE: 0.188** **RANK: 12/17 ISLANDS ASSESSED**

0.0% **35%** **-**
 Protected areas Coastline protected by natural habitat Standing fish stock



Infrastructure Capacity

0 1 **SCORE: 0.552** **RANK: 12/17 ISLANDS ASSESSED**



Health Care Capacity

SCORE: 0.375 **RANK: 9/17 ISLANDS ASSESSED**

6.6 **19.7** **26.3** **70.0%**
 Physicians per 10,000 Nurses & midwives per 10,000 Clinics per 10,000 DTP3 Vaccine coverage rate



Transportation Capacity

SCORE: 0.414 **RANK: 12/17 ISLANDS ASSESSED**

1.26 mi per sq. mi (0.78 km per sq. km)
 Road density



Communications Capacity

SCORE: 0.595 **RANK: 13/17 ISLANDS ASSESSED**

32.5% **97.0%**
 Internet access Mobile coverage



Emergency Services Capacity

SCORE: 0.558 **RANK: 8/17 ISLANDS ASSESSED**

6.05 mi (9.74 km) **3.69 mi (5.93 km)** **26.6**
 Average distance to police station Average distance to shelter Shelter capacity per 100 persons



Energy Capacity

SCORE: 0.816 **RANK: 10/17 ISLANDS ASSESSED**

91.9% **85.8%**
 Households with electricity Households with liquid propane gas



LOGISTICS CAPACITY (LC)

RANK: 11 / 18 ISLANDS ASSESSED
SCORE: 0.816

Logistics Capacity describes the ability of the island to ensure efficient storage, movement, and delivery of resources key for effective humanitarian assistance and disaster relief operations. Logistics Capacity is driven by distances to a major airport, major seaport, and disaster warehouse.



61.2 mi (98.47 km)

Distance to port



0 mi (0 km)

Distance to airport



113.06 mi (181.92 km)

Distance to
warehouse



COPING CAPACITY (CC)

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity in The Bahamas was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 13 / 17 ISLANDS ASSESSED
SCORE: 0.586



RESILIENCE (R)

Resilience in The Bahamas was calculated by using a combination of Vulnerability, and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 14 / 17 ISLANDS ASSESSED
SCORE: 0.425



HAZARD-SPECIFIC RISK (HSR)



Tropical Cyclone Winds RANK: 3 / 17 ISLANDS ASSESSED
 SCORE: 0.492



Storm Surge RANK: 5 / 17 ISLANDS ASSESSED
 SCORE: 0.495



Flooding RANK: 5 / 17 ISLANDS ASSESSED
 SCORE: 0.442



Wildfire RANK: 4 / 17 ISLANDS ASSESSED
 SCORE: 0.323



Landslide RANK: 1 / 17 ISLANDS ASSESSED
 SCORE: 0.438



Sea Level Rise RANK: 1 / 17 ISLANDS ASSESSED
 SCORE: 0.495



MULTI-HAZARD RISK (MHR)

3 / 17

RANK WITHIN ISLANDS
Score: 0.455



Cat Island's score and ranking are due to Moderate Multi-hazard Exposure combined with Very High Vulnerability and Low Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores:

CAT ISLAND SCORE
COUNTRY SCORE



Multi-Hazard Exposure



Vulnerability



Coping Capacity



CAT ISLAND RECOMMENDATIONS



Clean Water Access Vulnerability

Those without easy or adequate access to water distribution and containment systems face significant demands on daily routines that effectively limit their response and recovery capacity and the ability to maintain livelihoods. Increasing access to improved water and sanitation in Cat Island improves health outcomes and frees up resources to decrease further susceptibility to impacts.

RVA findings show that Cat Island has the highest overall Vulnerability in The Bahamas and the highest Clean Water Access Vulnerability in the islands, with approximately 25% of households lacking a public or private piped water source and approximately 18% without access to flush toilets. A lack of access to improved water sources and improved sanitation can lead to contracting enteric diseases from contaminated water supplies, exacerbating existing vulnerabilities. Lack of clean water in specific environments can quickly lead to a mass casualty situation requiring national-level resources and external assistance to ensure a population has clean drinking water necessary for survival.

Invest in the development of water treatment and water distribution systems to ensure populations have access to clean water and adequate sanitation services. Create and implement a plan for all households to have access to a piped water source. In all infrastructure enhancements, implement hazard mitigation strategies that consider hazard-specific risk. Cat Island has the 3rd highest overall Multi-Hazard Risk in the islands, with the highest rankings for landslide and sea level rise risk, 3rd highest hurricane wind risk, 4th highest wildfire risk, and 5th highest risk to both flood and storm surge, relative to other islands in The Bahamas.

CAT ISLAND RECOMMENDATIONS

2

Economic Constraints

Economic constraints have individual, household, community, and district-wide influence. Limitations on available financial resources reduce opportunities to invest in mitigation and preparedness measures and limit Cat Island's ability to facilitate short- and long-term recovery.

Also contributing to Cat Island's very high Vulnerability is its 3rd highest ranking for overall Economic Constraints in The Bahamas, driven by an economic dependency ratio of just over 60% and poverty rate of 50%. Cat Island has the 3rd highest number of social benefits recipients, and 56% of the population does not earn a wage or have business income. Economic constraints have individual, household, community, and island-wide influence. Limitations on available financial resources reduce opportunities to invest in mitigation and preparedness measures and hinder short- and long-term recovery efforts after a disaster.

Include considerations for economically vulnerable populations in disaster response and recovery plans. Institute programs to help prepare residents for disasters and provide support for short- and long-term recovery efforts in the aftermath of a disaster.

Assess feasibility of government programs to assist in job creation and economic growth through education and short-term assistance designed to promote self-sustaining economic opportunities and decrease long-term reliance on government programs.

CAT ISLAND RECOMMENDATIONS

3

Health Care Capacity

Robust access to skilled caregivers and the dedicated facilities for the treatment of injury and disease during non-disaster times greatly enhances the ability of the served population to absorb and manage post-disaster impacts to health, and increases the likelihood that disaster associated health and medical impacts may be addressed.

There are fewer than seven physicians per 10,000 persons in Cat Island, and just 70% of the population has received the DTP3 vaccination. Inadequate Health Care Capacity exacerbates other areas such as economic participation, dependency, and adolescent and elder care.

Develop programs to target the health care needs of the population. As needed, increase facilities and/or providers or implement a program to provide increased services at designated times to address preventative and routine care, decreasing the burden on providers. Implement education programs related to personal and preventative care to lessen the need for acute care services.

CAT ISLAND RECOMMENDATIONS

4

Transportation Capacity

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access island populations. Improved transportation capacity supports all aspects of Cat Island ability to distribute resources before, during, and after a disaster.

Cat Island ranks 6th lowest for overall Transportation Capacity. Denser and more diverse transportation networks provide additional options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access disaster-affected populations. Poor transportation capacity hampers emergency response activities and decreases public access to vital resources such as adequate healthcare and food.

Identify areas underserved by existing transportation routes and identify potential projects to increase access. Evaluate air, ground, and marine transport options, and ensure transportation limitations are considered in disaster response planning. Consideration should be given to evacuation routes, supply routes, and distribution plans that account for minimal transportation options.

Given Cat Island's risk to multiple hazards, ensure that transportation enhancements incorporate risk reduction strategies to minimize the impacts of future hazards.

**Better solutions.
Fewer disasters.**

Safer world.

**1305 N Holopono Street
Suite 2, Kihei, HI 9675 3**

**P: (808) 891-0525
F: (808) 891-0526**



@PDC_Global



/PDCGlobal



www.pdc.prg



ndpba.bah@pdc.org